

AMENDMENT AND PRESENTATION OF CLAIMS

Please replace all prior claims in the present application with the following claims.

1. (Currently Amended) A method for retrieving content from a web server that is upstream over a communication network from a browser application and a downstream proxy web server, the method comprising:

receiving a request, at the downstream proxy, from ~~[[a]]~~ the browser application for the content in the web server;

modifying the request to ~~include information specifying~~ specify support of a parse and pre-fetch ~~service~~ function, the request being modified in a manner so as to permit handling of the modified request directly by the web server in absence of an upstream proxy, upstream over the communication network for handling the modified request for that is communicating with the web server;

forwarding the modified request ~~towards~~ over a communication link of the communication network to the web server, wherein the upstream proxy, if present, intercepts the modified request and, in response to the specified support of the parse and pre-fetch function, executes the parse and pre-fetch function, whereby the upstream proxy pre-fetches at least a portion of the content from the web server; and selectively receiving the content from the upstream proxy over the communication ~~network~~ link and forwarding the content to the browser application.

2. (Currently Amended) A method according to claim 1, wherein, pursuant to the parse and pre-fetch function, the upstream proxy ~~in the modifying step~~ retrieves an initial portion of the

content from the web server, and parses the retrieved initial content, and wherein the pre-fetched portion of the content ~~being~~ is based on the parsed initial content.

3. (Currently Amended) A method according to claim 1, wherein the request ~~in the modifying step~~ conforms with a Hypertext Transfer Protocol (HTTP), the method further comprising:

inserting ~~the~~ treatment information in an optional field of the ~~HTTP~~ request.

4. (Original) A method according to claim 1, wherein the step of modifying the request is transparent to the browser application.

5. (Currently Amended) A method according to claim 1, further comprising:

receiving ~~another~~ a second request from ~~another~~ a second browser application; ~~and~~
modifying the second request in a same manner as with the request; and

forwarding ~~another~~ the modified second request ~~based on the other request to another~~
~~upstream~~ over a second communication link of the communication network to a
second upstream proxy,

wherein said receiving, modifying and forwarding steps with respect to the second
request are concurrently executed with the steps of receiving, modifying and
forwarding the request and modifying the request.

6. (Currently Amended) A method according to claim 1, further comprising:

communicating with a switching module to receive the request, wherein the switching module ~~including~~ includes Open Systems Interconnection (OSI) Layer 4 functionality to redirect the request from a network interface.

7. (Original) A method according to claim 1, wherein the content conforms with a markup language that includes Hypertext Markup Language (HTML).

8. (Currently Amended) A method according to claim 1, wherein the communication network ~~includes~~ comprises a Very Small Aperture Terminal (VSAT) satellite network, and the upstream proxy ~~in the modifying step~~ resides in an upstream VSAT in communication with the web server.

9. (Currently Amended) A non-transitory computer-readable storage medium bearing instructions for retrieving content from a web server that is upstream over a communication network ~~from a web server~~, said ~~instruction~~, instructions being arranged, upon execution, to cause one or more processors to perform the method of claim 1.

10. (Currently Amended) A network apparatus for supporting retrieval of content from a web server that is upstream over a communication network ~~from a web server~~ a browser application and the network apparatus, the apparatus comprising:

an interface configured to receive a request from ~~[[a]]~~ the browser application for the content in the web server; ~~and~~

a proxy ~~being downstream with respect to the web server and~~ configured to modify the request to ~~include information specifying~~ specify support of a parse and pre-fetch service function, the request being modified in a manner so as to permit handling of the modified request directly by the web server in absence of an upstream proxy, upstream over the communications network from the network apparatus for handling the modified request for that is communicating with the web server; and [[,]] an interface configured to forward ~~wherein~~ the modified request is ~~forwarded towards~~ over a communication link of the communication network to the web server, and wherein the ~~remote~~ upstream proxy, if present, intercepts the modified request and, in response to the specified support of the parse and pre-fetch function, executes the parse and pre-fetch function, whereby the upstream proxy pre-fetches at least a portion of the content from the web server, and wherein the proxy is further configured to receive the content from the upstream proxy being received over the communication network and being forwarded link and to forward the content to the browser application.

11. (Currently Amended) A network apparatus according to claim 10, wherein, pursuant to the parse and pre-fetch function, the upstream proxy retrieves an initial portion of the content from the web server, and parses the retrieved initial content, and wherein the pre-fetched portion of the content being is based on the parsed initial content.

12. (Currently Amended) A network apparatus according to claim 10, wherein the request conforms with a Hypertext Transfer Protocol (HTTP), the downstream proxy inserting ~~the~~ treatment information in an optional field of the ~~HTTP~~ request.

13. (Original) A network apparatus according to claim 10, wherein the request is transparent to the browser application.

14. (Currently Amended) A network apparatus according to claim 10, wherein the proxy concurrently communicates with a plurality of upstream proxies including the ~~remote~~ upstream proxy.

15. (Original) A network apparatus according to claim 10, further comprising:

a switching module coupled to the interface, the switching module including Open Systems Interconnection (OSI) Layer 4 functionality to redirect the request from the interface to the downstream proxy.

16. (Original) A network apparatus according to claim 10, wherein the content conforms with a markup language that includes Hypertext Markup Language (HTML).

17. (Currently Amended) A network apparatus according to claim 10, wherein the communication network ~~includes~~ comprises a Very Small Aperture Terminal (VSAT) satellite network, and the upstream proxy resides in an upstream VSAT in communication with the web server.

18. (Currently Amended) A network apparatus according to claim 10, further comprising:

a ~~local upstream~~ downstream proxy, downstream over the communication network from the web server and the upstream proxy, configured to support pre-fetching of content from ~~another~~ a second web server local to the network apparatus.

19. (Currently Amended) A method for retrieving content from a web server that is upstream over a communication network from a ~~web server~~ browser application and a downstream proxy, the method comprising:

intercepting a request ~~initiated by a browser application~~ for the content, wherein the request ~~being~~ has been modified by the downstream proxy to specify support of a parse and pre-fetch function and forwarded by ~~[[a]] the downstream proxy downstream with respect~~ over a communication link of the communication network to the web server, ~~wherein the request includes information identifying the downstream proxy;~~

pre-fetching, in response to the specified support of the parse and pre-fetch function, at least a portion of the content from the web server based on the request pursuant to the parse and pre-fetch function; and

forwarding the ~~pre-fetched~~ content to the downstream proxy over the communication network, ~~the downstream proxy forwarding the content to the browser application link.~~

20. (Currently Amended) A method according to claim 19, wherein, pursuant to the parse and pre-fetch function, the method further comprising:

retrieving an initial portion of the content from the web server; and

parsing the retrieved initial content, and

wherein the pre-fetched portion of the content ~~being~~ is based on the parsed initial content.

21. (Currently Amended) A method according to claim 19, wherein the request ~~in the intercepting step~~ conforms with a Hypertext Transfer Protocol (HTTP), and the method further comprising:

inserting ~~the~~ treatment information ~~resides~~ in an optional field of the ~~HTTP~~ request.

22. (Original) A method according to claim 19, wherein the step of intercepting the request is transparent to the browser application.

23. (Original) A method according to claim 19, wherein the content conforms with a markup language that includes Hypertext Markup Language (HTML).

24. (Currently Amended) A method according to claim 19, wherein the communication network ~~includes~~ comprises a Very Small Aperture Terminal (VSAT) satellite network, and the ~~upstream downstream proxy in the modifying step~~ resides in an VSAT in communication with the ~~web server~~ browser application.

25. (Currently Amended) A non-transitory computer-readable storage medium bearing instructions for retrieving content from a web server that is upstream over a communication network from a ~~web server~~ browser application, said ~~instruction~~, instructions being arranged, upon execution, to cause one or more processors to perform the method of claim 19.

26. (Currently Amended) A network apparatus for retrieving content from a web server, wherein the network apparatus and the web server are upstream over a communication network from a ~~web server~~ browser application and a downstream proxy, the network apparatus comprising:

an interface configured to intercept a request ~~initiated by a browser application~~ for the content, wherein the request ~~being~~ has been modified by the downstream proxy to specify support of a parse and pre-fetch function and forwarded by [[a]] the downstream proxy downstream with respect over a communication link of the communication network to the web server; ~~wherein the request includes information identifying the downstream proxy;~~ and

an upstream proxy configured to pre-fetch, in response to the specified support of the parse and pre-fetch function, at least a portion of the content from the web server ~~based on the request pursuant to the parse and pre-fetch function,~~ wherein the pre-fetched and to forward the content is forwarded to the downstream proxy over the communication network, ~~the downstream proxy forwarding the content to the browser application link.~~

27. (Currently Amended) A network apparatus according to claim 26, wherein, pursuant to the parse and pre-fetch function, the upstream proxy retrieves an initial portion of the content from the web server, and parses the retrieved initial content, and wherein the pre-fetched portion of the content ~~being~~ is based on the parsed initial content.

28. (Currently Amended) A network apparatus according to claim 26, wherein the request conforms with a Hypertext Transfer Protocol (HTTP), and the downstream proxy inserts treatment information ~~resides~~ in an optional field of the ~~HTTP~~ request.

29. (Currently Amended) A network apparatus according to claim 26, wherein the ~~parsing of the request and~~ pre-fetching of at least a portion of the content is transparent to the browser application.

30. (Original) A network apparatus according to claim 26, wherein the content conforms with a markup language that includes Hypertext Markup Language (HTML).

31. (Currently Amended) A network apparatus according to claim 26, wherein the communication network ~~includes~~ comprises a Very Small Aperture Terminal (VSAT) satellite network.

32. (Currently Amended) A system for supporting retrieval of content from a web server that is upstream over a meshed communication network from a browser application and a downstream proxy, the system comprising:

a ~~first~~ downstream server, downstream over the meshed communication network from the web server, configured to receive a request for the content from a browser application ~~for the content resident in the web server~~, the ~~first~~ downstream server including ~~[[a]]~~ the downstream proxy, wherein the downstream proxy is configured (1) to modify the request to include information specifying specify support of a parse and pre-fetch service ~~within an optional header field of the request~~ function, the request being

modified in a manner so as to permit handling of the modified request directly by the web server in absence of an upstream proxy ~~that is communicating with, upstream~~ over the meshed communications network from the downstream server for handling the modified request for the web server, and (2) to forward the modified request over a communication link of the meshed communication network to the web server; and an upstream server, upstream over the meshed communication network from the downstream server, configured ~~a second server configured as to the upstream proxy~~ to intercept the modified request and, the upstream server including the upstream proxy configured to pre-fetch, in response to the specified support of the parse and pre-fetch function, at least a portion of the content from the web server pursuant to the parse and pre-fetch function, the second server forwarding the pre-fetched and to forward the content to the downstream server over the communication network to the first server link.

33. (Currently Amended) A system according to claim 32, wherein, pursuant to the parse and pre-fetch function, the upstream proxy retrieves an initial portion of the content from the web server, and parses the retrieved initial content, and wherein the pre-fetched portion of the content being is based on the parsed initial content.

34. (Currently Amended) A system according to claim 32, further comprising:

a plurality of upstream proxies in simultaneous communication with the downstream proxy of the first downstream server, each for supporting ~~parsing and pre-fetching of the parse and pre-fetch function with respect to~~ the parse and pre-fetch function with respect to content from a respective plurality of web servers.

35. (Currently Amended) A system according to claim 32, wherein the ~~first~~ downstream server includes a switching module having Open Systems Interconnection (OSI) Layer 4 functionality to redirect the request from a network interface to the downstream proxy.

36. (Currently Amended) A network device for retrieving content from a web server that is upstream over a communication network ~~from a web server~~ a browser application and a downstream proxy, the device comprising:

means for receiving a request, at the downstream proxy, from ~~[[a]]~~ the browser application for the content in the web server;

means for modifying the request to ~~include information specifying~~ specify support of a parse and pre-fetch ~~service~~ function, the request being modified in a manner so as to permit handling of the modified request directly by the web server in absence of an upstream proxy, upstream over the communications network from the network device for handling the modified request for that is communicating with the web server;

means for forwarding the modified request ~~towards~~ over a communication link of the communications network to the web server, wherein the upstream proxy, if present, intercepts the modified request and, in response to the specified support of the parse and pre-fetch function, executes the parse and pre-fetch function, whereby the upstream proxy pre-fetches the content from the web server; and

means for selectively receiving the content from the upstream proxy over the communication ~~network~~ link and forwarding the content to the browser application.